

Grade 5

Unit 4

**Decimal Computation
And
Applications**

Student Workbook

Name:

A

Correct _____

Multiply.

1	$62.3 \times 10 =$		23	$4.1 \times 1000 =$	
2	$62.3 \times 100 =$		24	$7.6 \times 1000 =$	
3	$62.3 \times 1000 =$		25	$0.01 \times 1000 =$	
4	$73.6 \times 10 =$		26	$0.07 \times 1000 =$	
5	$73.6 \times 100 =$		27	$0.072 \times 100 =$	
6	$73.6 \times 1000 =$		28	$0.802 \times 10 =$	
7	$0.6 \times 10 =$		29	$0.019 \times 1000 =$	
8	$0.06 \times 10 =$		30	$7.412 \times 1000 =$	
9	$0.006 \times 10 =$		31	$6.8 \times 100 =$	
10	$0.3 \times 10 =$		32	$4.901 \times 10 =$	
11	$0.3 \times 100 =$		33	$16.07 \times 100 =$	
12	$0.3 \times 1000 =$		34	$9.19 \times 10 =$	
13	$0.02 \times 10 =$		35	$18.2 \times 100 =$	
14	$0.02 \times 100 =$		36	$14.7 \times 1000 =$	
15	$0.02 \times 1000 =$		37	$2.021 \times 100 =$	
16	$0.008 \times 10 =$		38	$172.1 \times 10 =$	
17	$0.008 \times 100 =$		39	$3.2 \times 20 =$	
18	$0.008 \times 1000 =$		40	$4.1 \times 20 =$	
19	$0.32 \times 10 =$		41	$3.2 \times 30 =$	
20	$0.67 \times 10 =$		42	$1.3 \times 30 =$	
21	$0.91 \times 100 =$		43	$3.12 \times 40 =$	
22	$0.74 \times 100 =$		44	$14.12 \times 40 =$	

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B

Improvement _____ # Correct _____

Multiply.

1	$46.1 \times 10 =$		23	$5.2 \times 1000 =$	
2	$46.1 \times 100 =$		24	$8.7 \times 1000 =$	
3	$46.1 \times 1000 =$		25	$0.01 \times 1000 =$	
4	$89.2 \times 10 =$		26	$0.08 \times 1000 =$	
5	$89.2 \times 100 =$		27	$0.083 \times 10 =$	
6	$89.2 \times 1000 =$		28	$0.903 \times 10 =$	
7	$0.3 \times 10 =$		29	$0.017 \times 1000 =$	
8	$0.03 \times 10 =$		30	$8.523 \times 1000 =$	
9	$0.003 \times 10 =$		31	$7.9 \times 100 =$	
10	$0.9 \times 10 =$		32	$5.802 \times 10 =$	
11	$0.9 \times 100 =$		33	$27.08 \times 100 =$	
12	$0.9 \times 1000 =$		34	$8.18 \times 10 =$	
13	$0.04 \times 10 =$		35	$29.3 \times 100 =$	
14	$0.04 \times 100 =$		36	$25.8 \times 1000 =$	
15	$0.04 \times 1000 =$		37	$3.032 \times 100 =$	
16	$0.007 \times 10 =$		38	$283.1 \times 10 =$	
17	$0.007 \times 100 =$		39	$2.1 \times 20 =$	
18	$0.007 \times 1000 =$		40	$3.3 \times 20 =$	
19	$0.45 \times 10 =$		41	$3.1 \times 30 =$	
20	$0.78 \times 10 =$		42	$1.2 \times 30 =$	
21	$0.28 \times 100 =$		43	$2.11 \times 40 =$	
22	$0.19 \times 100 =$		44	$13.11 \times 40 =$	

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Name _____

Date _____

1. Express as decimal numerals. The first one is done for you.

a. four thousandths	0.004
b. twenty-four thousandths	
c. one and three hundred twenty-four thousandths	
d. six hundred eight thousandths	
e. six hundred and eight thousandths	
f. $\frac{46}{1000}$	
g. $3\frac{946}{1000}$	
h. $200\frac{904}{1000}$	

2. Express in words.

- a. 0.005
b. 11.037
c. 403.608

3. Write the number on a place value chart then write it in expanded form using fractions or decimals to express the decimal place value units. The first one is done for you.

- a. 35.827

tens	ones		tenths	hundredths	thousandths
3	5	●	8	2	7

$$35.827 = 3 \times 10 + 5 \times 1 + 8 \times \left(\frac{1}{10}\right) + 2 \times \left(\frac{1}{100}\right) + 7 \times \left(\frac{1}{1000}\right) \quad \text{or}$$

$$= 3 \times 10 + 5 \times 1 + 8 \times 0.1 + 2 \times 0.01 + 7 \times 0.001$$

b. 0.249

c. 57.281

4. Write a decimal for each of the following. Use a place value chart to help if necessary.

a. $7 \times 10 + 4 \times 1 + 6 \times \left(\frac{1}{10}\right) + 9 \times \left(\frac{1}{100}\right) + 2 \times \left(\frac{1}{1000}\right)$

b. $5 \times 100 + 3 \times 10 + 8 \times 0.1 + 9 \times 0.001$

c. $4 \times 1000 + 2 \times 100 + 7 \times 1 + 3 \times \left(\frac{1}{100}\right) + 4 \times \left(\frac{1}{1000}\right)$

5. Mr. Pham wrote 2.619 on the board. Christy says its two and six hundred nineteen thousandths. Amy says its 2 ones 6 tenths 1 hundredth 9 thousandths. Who is right? Use words and numbers to explain your answer.

Name _____

Date _____

1. Express as decimal numerals. The first one is done for you.

a. Five thousandths	0.005
b. Thirty-five thousandths	
c. Nine and two hundred thirty-five thousandths	
d. Eight hundred and five thousandths	
e. $\frac{8}{1000}$	
f. $\frac{28}{1000}$	
g. $7\frac{528}{1000}$	
h. $300\frac{502}{1000}$	

2. Express in words.

- a. 0.008
- b. 15.062
- c. 607.409

3. Write the number on a place value chart then write it in expanded form using fractions or decimals to express the decimal place value units. The first one is done for you.

- a. 27.346

tens	ones		tenths	hundredths	thousandths
2	7	•	3	4	6

$$27.346 = 2 \times 10 + 7 \times 1 + 3 \times \left(\frac{1}{10}\right) + 4 \times \left(\frac{1}{100}\right) + 6 \times \left(\frac{1}{1000}\right)$$

OR

$$27.346 = 2 \times 10 + 7 \times 1 + 3 \times 0.1 + 4 \times 0.01 + 6 \times 0.001$$

b. 0.362

c. 49.564

4. Write a decimal for each of the following. Use a place value chart to help if necessary.

a. $3 \times 10 + 5 \times 1 + 2 \times \left(\frac{1}{10}\right) + 7 \times \left(\frac{1}{100}\right) + 6 \times \left(\frac{1}{1000}\right)$

b. $9 \times 100 + 2 \times 10 + 3 \times 0.1 + 7 \times 0.001$

c. $5 \times 1000 + 4 \times 100 + 8 \times 1 + 6 \times \left(\frac{1}{100}\right) + 5 \times \left(\frac{1}{1000}\right)$

5. At the beginning of a lesson, a piece of chalk is 2.967 of an inch. At the end of lesson, it's 2.308 of an inch. Write the two amounts in expanded form using fractions.

a. At the beginning of the lesson:

b. At the end of the lesson:

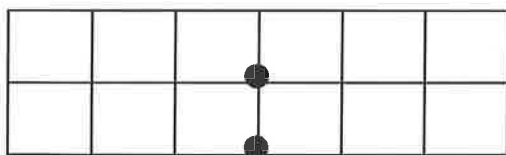
6. Mrs. Herman asked the class to write an expanded form for 412.638. Nancy wrote the expanded form using fractions and Charles wrote the expanded form using decimals. Write their responses.

Name _____

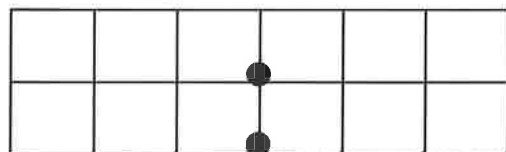
Date _____

1. Show the numbers on the place value chart using digits. Use $>$, $<$, or $=$ to compare. Explain your thinking to the right.

34.223 ○ 34.232







0.8 ○ 0.706



2. Use $>$, $<$, or $=$ to compare the following. Use a place value chart to help if necessary.

a. 16.3	○	16.4
b. 0.83	○	$\frac{83}{100}$
c. $\frac{205}{1000}$	○	0.205
d. 95.580	○	95.58
e. 9.1	○	9.099
f. 8.3	○	83 tenths
g. 5.8	○	Fifty-eight hundredths

h. Thirty-six and nine thousandths		4 tens
i. 202 hundredths		2 hundreds and 2 thousandths
j. One hundred fifty-eight thousandths		158,000
k. 4.15		415 tenths

3. Arrange the numbers in increasing order.

a. 3.049 3.059 3.05 3.04

b. 182.205 182.05 182.105 182.025

4. Arrange the numbers in decreasing order.

a. 7.608 7.68 7.6 7.068

b. 439.216 439.126 439.612 439.261

5. Lance measured 0.485 liter of water. Angel measured 0.5 liter of water. Lance said, “My beaker has more water than yours because my number has 3 decimal places and yours only has 1.” Is Lance correct? Use words and numbers to explain your answer.
6. Dr. Hong prescribed 0.019 liter more medicine than Dr. Tannenbaum. Dr. Evans prescribed 0.02 less than Dr. Hong. Who prescribed the most medicine? Who prescribed the least? Explain how you know using a place value chart.

Name _____

Date _____

1. Use
- $>$
- ,
- $<$
- , or
- $=$
- to compare the following.

a. 16.45	<input type="text"/>	16.454
b. 0.83	<input type="text"/>	$\frac{83}{100}$
c. $\frac{205}{1000}$	<input type="text"/>	0.205
d. 95.045	<input type="text"/>	95.545
e. 419.10	<input type="text"/>	419.099
f. Five ones and eight tenths	<input type="text"/>	Fifty-eight tenths
g. Thirty-six and nine thousandths	<input type="text"/>	Four tens
h. One hundred four and twelve hundredths	<input type="text"/>	One hundred four and two thousandths
i. One hundred fifty-eight thousandths	<input type="text"/>	0.58
j. 703.005	<input type="text"/>	Seven hundred three and five hundredths

2. Arrange the numbers in increasing order.

a. 8.08 8.081 8.09 8.008

b. 14.204 14.200 14.240 14.210

3. Arrange the numbers in decreasing order.

a. 8.508 8.58 7.5 7.058

b. 439.216 439.126 439.612 439.261

4. James measured his hand. It was 0.17 meters. Jennifer measured her hand. It was 0.165 meters. Whose hand is bigger? How do you know?
5. In a paper airplane contest, Marcel's plane travels 3.345 meters. Salvador's plane travels 3.35 meters. Jennifer's plane travels 3.3 meters. Based on the measurements, whose plane traveled the farthest distance? Whose plane traveled the shortest distance? Explain your reasoning using a place value chart.

A

Correct _____

Find the midpoint.

1	0	10	23	8.5	8.6
2	0	1	24	2.8	2.9
3	0	0.01	25	0.03	0.04
4	10	20	26	0.13	0.14
5	1	2	27	0.37	0.38
6	2	3	28	80	90
7	3	4	29	90	100
8	7	8	30	8	9
9	1	2	31	9	10
10	0.1	0.2	32	0.8	0.9
11	0.2	0.3	33	0.9	1
12	0.3	0.4	34	0.08	0.09
13	0.7	0.8	35	0.09	0.1
14	0.1	0.2	36	26	27
15	0.01	0.02	37	7.8	7.9
16	0.02	0.03	38	1.26	1.27
17	0.03	0.04	39	29	30
18	0.07	0.08	40	9.9	10
19	6	7	41	7.9	8
20	16	17	42	1.59	1.6
21	38	39	43	1.79	1.8
22	0.4	0.5	44	3.99	4

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B

Improvement _____

Correct _____

Find the midpoint.

1	10	20	23	0.7	0.8
2	1	2	24	4.7	4.8
3	0.1	0.2	25	2.3	2.4
4	0.01	0.02	26	0.02	0.03
5	0	10	27	0.12	0.13
6	0	1	28	0.47	0.48
7	1	2	29	80	90
8	2	3	30	90	100
9	6	7	31	8	9
10	1	2	32	9	10
11	0.1	0.2	33	0.8	0.9
12	0.2	0.3	34	0.9	1
13	0.3	0.4	35	0.08	0.09
14	0.6	0.7	36	0.09	0.1
15	0.1	0.2	37	36	37
16	0.01	0.02	38	6.8	6.9
17	0.02	0.03	39	1.46	1.47
18	0.03	0.04	40	39	40
19	0.06	0.07	41	9.9	10
20	7	8	42	6.9	7
21	17	18	43	1.29	1.3
22	47	48	44	6.99	7

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Name _____

Date _____

Fill in the table then round to the given place. Label the number lines to show your work. Circle the rounded number.

1. 3.1

a. hundredths



b. tenths



c. tens



tens	1s	Tenths	Hundredths	Thousandths

2. 115.376

a. hundredths



b. ones



c. tens



Tens	Ones	Tenths	Hundredths	Thousandths

3. 0.994

Tens	Ones	Tenths	Hundredths	thousandths

a. hundredths



b. tenths



c. ones



d. tens



4. For open international competition, the throwing circle in the men's shot put must have a diameter of 2.135 meters. Round this number to the nearest hundredth to estimate the diameter. Use a number line to show your work.

5. Jen's pedometer said she walked 2.549 miles. She rounded her distance to 3 miles. Her brother rounded her distance to 2.5 miles. When they argued about it, their mom said they are both right. Explain how that could be true. Use number lines and words to explain your reasoning.

Name _____

Date _____

Round to the given place value. Label the number lines to show your work. Circle the rounded number. Use a separate sheet to show your decompositions for each one.

1. 4.3

a. hundredths



b. tenths



c. ones



d. tens



2. 225.286

a. hundredths



b. tenths



c. ones



d. tens



3. 8.984

a. hundredths



b. tenths



c. ones



d. tens



4. On a major League Baseball diamond, the distance from the pitcher's mound to home plate is 18.386 meters.

a. Round this number to the nearest hundredth of a meter to estimate the distance. Use a number line to show your work.

b. About how many centimeters is it from the pitcher's mound to home plate?

5. Jules reads that one pint is equivalent to 0.473 liters. He asks his teacher how many liters there are in a pint. His teacher responds that there are about 0.47 liters in a pint. He asks his parents, and they say there are about 0.5 liters in a pint. Jules says they are both correct. How can that be true? Explain your answer.

Name _____

Date _____

1. Write the decomposition that helps you, and then round to the given place value. Draw number lines to explain your thinking. Circle the rounded value on each number line.

- a. Round 32.697 to nearest tenth, hundredth, and whole number.

- b. Round 141.999 to nearest tenth, hundredth, ten, and hundred.

2. A root beer factory produces 132,554 cases in 100 days. About how many cases does the factory produce in 1 day? Round your answer to the nearest tenth of a case. Show your thinking on the number line.



Lesson 8:

Round a given decimal to any place using place value understanding and the vertical number line.

Date:

6/28/13



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engage^{ny}

1.C.21

3. A decimal number has two digits to the right of its decimal point. If we round it to the nearest tenth, the result is 13.7.
- a. What is the maximum possible value of this number? Use words and the number line to explain your reasoning. Include the midpoint on your number line.



- b. What is the minimum possible value of this decimal? Use words and the number line to explain your reasoning. Include the midpoint on your number line.



Name _____

Date _____

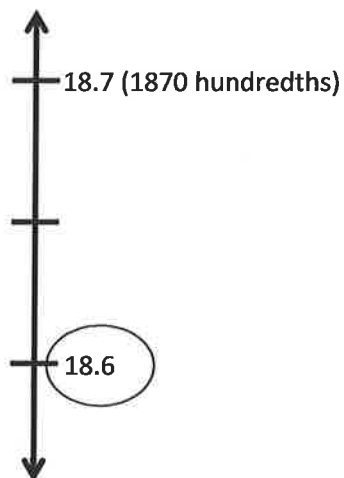
1. Round the quantity to the given place value. Draw number lines to explain your thinking. Circle the rounded value on the number line.

a. 43.586 to nearest tenth, hundredth, and whole number

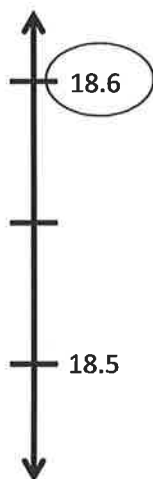
b. 243.875 to nearest tenth, hundredth, ten, and hundred

2. A trip from New York City to Seattle is 2,852.1 miles. A family wants to make the drive in 10 days, driving the same number of miles each day. About how many miles will they drive each day? Round your answer to the nearest tenth of a mile.

3. A decimal number has two digits to the right of its decimal point. If we round it to the nearest tenth, the result is 18.6.
- a. What is the maximum possible value of this decimal? Use words and the number line to explain your reasoning.



- b. What is the minimum possible value of this decimal? Use words, numbers and pictures to explain your reasoning.



A

Correct _____

Round to the nearest whole number.

1	3.1 ≈		23	12.51 ≈	
2	3.2 ≈		24	16.61 ≈	
3	3.3 ≈		25	17.41 ≈	
4	3.4 ≈		26	11.51 ≈	
5	3.5 ≈		27	11.49 ≈	
6	3.6 ≈		28	13.49 ≈	
7	3.9 ≈		29	13.51 ≈	
8	13.9 ≈		30	15.51 ≈	
9	13.1 ≈		31	15.49 ≈	
10	13.5 ≈		32	6.3 ≈	
11	7.5 ≈		33	7.6 ≈	
12	8.5 ≈		34	49.5 ≈	
13	9.5 ≈		35	3.45 ≈	
14	19.5 ≈		36	17.46 ≈	
15	29.5 ≈		37	11.76 ≈	
16	89.5 ≈		38	5.2 ≈	
17	2.4 ≈		39	12.8 ≈	
18	2.41 ≈		40	59.5 ≈	
19	2.42 ≈		41	5.45 ≈	
20	2.45 ≈		42	19.47 ≈	
21	2.49 ≈		43	19.87 ≈	
22	2.51 ≈		44	69.51 ≈	

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B Improvement _____ # Correct _____

Round to the nearest whole number.

1	4.1 ≈		23	13.51 ≈	
2	4.2 ≈		24	17.61 ≈	
3	4.3 ≈		25	18.41 ≈	
4	4.4 ≈		26	12.51 ≈	
5	4.5 ≈		27	12.49 ≈	
6	4.6 ≈		28	14.49 ≈	
7	4.9 ≈		29	14.51 ≈	
8	14.9 ≈		30	16.51 ≈	
9	14.1 ≈		31	16.49 ≈	
10	14.5 ≈		32	7.3 ≈	
11	7.5 ≈		33	8.6 ≈	
12	8.5 ≈		34	39.5 ≈	
13	9.5 ≈		35	4.45 ≈	
14	19.5 ≈		36	18.46 ≈	
15	29.5 ≈		37	12.76 ≈	
16	79.5 ≈		38	6.2 ≈	
17	3.4 ≈		39	13.8 ≈	
18	3.41 ≈		40	49.5 ≈	
19	3.42 ≈		41	6.45 ≈	
20	3.45 ≈		42	19.48 ≈	
21	3.49 ≈		43	19.78 ≈	
22	3.51 ≈		44	59.51 ≈	

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Name _____

Date _____

1. Solve then write your sum in standard form. You may draw a place value mat on a separate sheet to help you, if necessary.

a. 1 tenth + 2 tenths = _____ tenths = _____

b. 14 tenths + 9 tenths = _____ tenths = _____ one(s) _____ tenth(s) = _____

c. 1 hundredth + 2 hundredths = _____ hundredths = _____

d. 27 hundredths + 5 hundredths = _____ hundredths = _____ tenths _____ hundredths = _____

e. 1 thousandth + 2 thousandths = _____ thousandths = _____

f. 35 thousandths + 8 thousandths = _____ thousandths = _____ hundredths _____ thousandths = _____

g. 6 tenths + 3 thousandths = _____ thousandths = _____

h. 7 ones 2 tenths + 4 tenths = _____ tenths = _____

i. 2 thousandths + 9 ones 5 thousandths = _____ thousandths = _____

2. Solve using the standard algorithm.

a. $0.3 + 0.82 =$ _____	b. $1.03 + 0.08 =$ _____
c. $7.3 + 2.8 =$ _____	d. $57.03 + 2.08 =$ _____

e. $62.573 + 4.328 =$ _____	f. $85.703 + 12.197 =$ _____
-----------------------------	------------------------------

3. Van Cortlandt Park's walking trail is 1.02 km longer than Marine Park. Central Park's walking trail is 0.242 km longer than Van Cortlandt's.

a. Fill in the missing information in the chart below.

New York City Walking Trails	
Central Park	_____ km
Marine Park	1.28 km
Van Cortlandt Park	_____ km

b. If a tourist walked all 3 trails in a day, how many km would they have walked?

4. Meyer has 0.64 GB of space remaining on his iPod. He wants to download a pedometer app (0.24 GB) a photo app (0.403 GB) and a math app (0.3 GB). Which combinations of apps can he download? Explain your thinking.

Name _____

Date _____

1. Solve.

- a. 3 tenths + 4 tenths = _____ tenths
- b. 12 tenths + 9 tenths = _____ tenths = _____ one(s) _____ tenth(s)
- c. 3 hundredths + 4 hundredths = _____ hundredths
- d. 27 hundredths + 7 hundredths = _____ hundredths = _____ tenths _____ hundredths
- e. 4 thousandths + 3 thousandths = _____ thousandths
- f. 39 thousandths + 5 thousandths = _____ thousandths = _____ hundredths _____ thousandths
- g. 5 tenths + 7 thousandths = _____ thousandths
- h. 4 ones 4 tenths + 4 tenths = _____ tenths
- i. 8 thousandths + 6 ones 8 thousandths = _____ thousandths

2. Solve using the standard algorithm.

a. $0.4 + 0.7 =$ _____	b. $2.04 + 0.07 =$ _____
c. $6.4 + 3.7 =$ _____	d. $56.04 + 3.07 =$ _____

e. $72.564 + 5.137 =$ _____

f. $75.604 + 22.296 =$ _____

3. Walkway Over the Hudson, a bridge that crosses the Hudson River in Poughkeepsie, is 2.063 kilometers. Anping Bridge, which was built in China 850 years ago, is 2.07 kilometers long.

a. Which bridge is longer? How much longer? Show your thinking.

b. Leah likes to walk her dog on the Walkway Over the Hudson. If she walks across and back, how far do she and her dog walk?

4. For his parents' anniversary, Danny spends \$5.87 on a photo. He also buys 3 balloons for \$2.49 each and a box of strawberries for \$4.50. How much money does he spend all together?

Name _____ Date _____

1. Subtract, writing the difference in standard form. You may use a place value chart to solve.

a. 5 tenths $-$ 2 tenths = _____ tenths = _____

b. 5 ones 9 thousandths $-$ 2 ones = _____ ones _____ thousandths = _____

c. 7 hundreds 8 hundredths $-$ 4 hundredths = _____ hundreds _____ hundredths = _____

d. 37 thousandths $-$ 16 thousandths = _____ thousandths = _____

2. Solve using the standard algorithm.

a. $1.4 - 0.7 =$ _____ 	b. $91.49 - 0.7 =$ _____ 	c. $191.49 - 10.72 =$ _____
d. $7.148 - 0.07 =$ _____ 	e. $60.91 - 2.856 =$ _____ 	f. $361.31 - 2.841 =$ _____

3. Solve.

a. 10 tens – 1 ten 1 tenth	b. 3 – 22 tenths	c. 37 tenths – 1 one 2 tenths
d. 8 ones 9 hundredths – 3.4	e. 5.622 – 3 hundredths	f. 2 ones 4 tenths – 0.59

4. Mrs. Fan wrote 5 tenths minus 3 hundredths on the board. Michael said the answer is 2 tenths because 5 minus 3 is 2. Is he correct? Explain.

5. A pen costs \$2.09. It costs \$0.45 less than a marker. Ken paid for one pen and one marker with a five dollar bill. Use a tape diagram with calculations to determine his change.

Name _____

Date _____

1. Subtract. You may use a place value chart.

a. 9 tenths – 3 tenths = _____ tenth

b. 9 ones 2 thousandths – 3 ones = _____ ones _____ thousandths

c. 4 hundreds 6 hundredths – 3 hundredths = _____ hundreds _____ hundredths

d. 56 thousandths – 23 thousandths = _____ thousandths

= _____ hundredths _____ thousandths

2. Solve using the standard algorithm.

a. $1.8 - 0.9 =$ _____	b. $41.84 - 0.9 =$ _____	c. $341.84 - 21.92 =$ _____
d. $5.182 - 0.09 =$ _____	e. $50.416 - 4.25 =$ _____	f. $741. - 3.91 =$ _____

3. Solve.

a. 30 tens – 3 tens 3 tenths	b. 5 – 16 tenths	c. 24 tenths – 1 one 3 tenths
d. 6 ones 7 hundredths – 2.3	e. 8.246 – 5 hundredths	f. 5 ones 3 tenths – 0.53

4. Mr. House wrote 8 tenths minus 5 hundredths on the board. Maggie said the answer is 3 hundredths because 8 minus 5 is 3. Is she correct? Explain.

5. A clipboard costs \$2.23. It costs \$0.58 more than a notebook. Lisa buys two clipboards and one notebook, and paid with a ten dollar bill. Use a tape diagram with calculations to show her change.

Name _____

Date _____

1. Solve by drawing disks on a place value chart. Write an equation and express the product in standard form.

a. 3 copies of 2 tenths

b. 5 groups of 2 hundredths

c. 3 times 6 tenths

d. 6 times 4 hundredths

e. 5 times as much as 7 tenths

f. 4 thousandths times 3

2. Draw a model similar to the one pictured below for Parts (b), (c), and (d). Find the sum of the partial products to evaluate each expression.

a. 7×3.12

	3 ones	+	1 tenth	+	2 hundredths
7	7 x 3 ones		7 x 1 tenth		7 x 2 hundredths
	_____	+	_____	+	0.14 = _____

b. 6×4.25

c. 3 copies of 4.65

d. 4 times as much as 20.075

3. Miles incorrectly gave the product of 7×2.6 as 14.42. Use a place value chart or an area model to help Miles understand his mistake.

4. Mrs. Zamir wants to buy 8 protractors and some erasers for her classroom. She has \$30. If protractors cost \$2.65 each, how much will Mrs. Zamir have left to buy erasers?

Name _____

Date _____

1. Solve by drawing disks on a place value chart. Write an equation and express the product in standard form.

a. 2 copies of 4 tenths

b. 4 groups of 5 hundredths

b. 4 times 7 tenths

d. 3 times 5 hundredths

c. 9 times as much as 7 tenths

f. 6 thousandths times 8

2. Draw a model similar to the one pictured below. Find the sum of the partial products to evaluate each expression.

a. 4×6.79

	6 ones	+	7 tenths	+	9 hundredths
4	4 x 6 ones		4 x 7 tenths		4 x 9 hundredths

_____ + _____ + _____ = _____

b. 6×7.49 hundredths

c. 9 copies of 3.65

d. 3 times 20.175

3. Leanne multiplied 8×4.3 and got 32.24. Is Leanne correct? Use an area model to explain your answer.

4. Anna buys groceries for her family. Hamburger meat is \$3.38 per pound, sweet potatoes are \$0.79 each, and hamburger rolls are \$2.30 a bag. If Anna buys 3 pounds of meat, 5 sweet potatoes, and one bag of hamburger rolls, what will she pay in all for the groceries?

A

Correct _____

Add.

1	$3 + 1 =$		23	$5 + 0.1 =$	
2	$3.5 + 1 =$		24	$5.7 + 0.1 =$	
3	$3.52 + 1 =$		25	$5.73 + 0.1 =$	
4	$0.3 + 0.1 =$		26	$5.736 + 0.1 =$	
5	$0.37 + 0.1 =$		27	$5.736 + 1 =$	
6	$5.37 + 0.1 =$		28	$5.736 + 0.01 =$	
7	$0.03 + 0.01 =$		29	$5.736 + 0.001 =$	
8	$0.83 + 0.01 =$		30	$6.208 + 0.01 =$	
9	$2.83 + 0.01 =$		31	$3 + 0.01 =$	
10	$30 + 10 =$		32	$3.5 + 0.01 =$	
11	$32 + 10 =$		33	$3.58 + 0.01 =$	
12	$32.5 + 10 =$		34	$3.584 + 0.01 =$	
13	$32.58 + 10 =$		35	$3.584 + 0.001 =$	
14	$40.789 + 1 =$		36	$3.584 + 0.1 =$	
15	$4 + 1 =$		37	$3.584 + 1 =$	
16	$4.6 + 1 =$		38	$6.804 + 0.01 =$	
17	$4.62 + 1 =$		39	$8.642 + 0.001 =$	
18	$4.628 + 1 =$		40	$7.65 + 0.001 =$	
19	$4.628 + 0.1 =$		41	$3.987 + 0.1 =$	
20	$4.628 + 0.01 =$		42	$4.279 + 0.001 =$	
21	$4.628 + 0.001 =$		43	$13.579 + 0.01 =$	
22	$27.048 + 0.1 =$		44	$15.491 + 0.01 =$	

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B Improvement _____ # Correct _____

Add.					
1	$2 + 1 =$		23	$4 + 0.1 =$	
2	$2.5 + 1 =$		24	$4.7 + 0.1 =$	
3	$2.53 + 1 =$		25	$4.73 + 0.1 =$	
4	$0.2 + 0.1 =$		26	$4.736 + 0.1 =$	
5	$0.27 + 0.1 =$		27	$4.736 + 1 =$	
6	$5.27 + 0.1 =$		28	$4.736 + 0.01 =$	
7	$0.02 + 0.01 =$		29	$4.736 + 0.001 =$	
8	$0.82 + 0.01 =$		30	$5.208 + 0.01 =$	
9	$4.82 + 0.01 =$		31	$2 + 0.01 =$	
10	$20 + 10 =$		32	$2.5 + 0.01 =$	
11	$23 + 10 =$		33	$2.58 + 0.01 =$	
12	$23.5 + 10 =$		34	$2.584 + 0.01 =$	
13	$23.58 + 10 =$		35	$2.584 + 0.001 =$	
14	$30.789 + 1 =$		36	$2.584 + 0.1 =$	
15	$3 + 1 =$		37	$2.584 + 1 =$	
16	$3.6 + 1 =$		38	$5.804 + 0.01 =$	
17	$3.62 + 1 =$		39	$7.642 + 0.001 =$	
18	$3.628 + 1 =$		40	$6.75 + 0.001 =$	
19	$3.628 + 0.1 =$		41	$2.987 + 0.1 =$	
20	$3.628 + 0.01 =$		42	$3.279 + 0.001 =$	
21	$3.628 + 0.001 =$		43	$12.579 + 0.01 =$	
22	$37.048 + 0.1 =$		44	$14.391 + 0.01 =$	

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Name _____ Date _____

1. Choose the reasonable product for each expression. Explain your reasoning in the spaces below using words, pictures and numbers.

a. 2.5×4 0.1 1 10 100

b. 3.14×7 2198 219.8 21.98 2.198

c. 8×6.022 4.8176 48.176 481.76 4817.6

d. 9×5.48 493.2 49.32 4.932 .4932

2. Pedro is building a spice rack with 4 shelves that are each 0.55 meter long. At the hardware store, Pedro finds that he can only buy the shelving in whole meter lengths. Exactly how many meters of shelving does Pedro need? Since he can only buy whole number lengths, how many meters of shelving should he buy? Justify your thinking.
3. Marcel rides his bicycle to school and back on Tuesdays and Thursdays. He lives 3.62 kilometers away from school. Marcel's gym teacher wants to know about how many kilometers he bikes in a week. Marcel's math teacher wants to know exactly how many kilometers he bikes in a week. What should Marcel tell each teacher? Show your work.
4. The poetry club had its first bake sale, and they made \$79.35. The club members are planning to have 4 more bake sales. Leslie said, "If we make the same amount at each bake sale, we'll earn \$3,967.50." Peggy said, "No way, Leslie! We'll earn \$396.75 after five bake sales." Use estimation to help Peggy explain why Leslie's reasoning is inaccurate. Show your reasoning using words, numbers and pictures.

Name _____

Date _____

1. Choose the reasonable product for each expression. Explain your thinking in the spaces below using words, pictures, and numbers.

a. 2.1×3 0.63 6.3 63 630

b. 4.27×6 2562 256.2 25.62 2.562

c. 7×6.053 4237.1 423.71 42.371 4.2371

d. 9×4.82 4.338 43.38 433.8 4338

2. YiTing weighs 8.3 kg. Her older brother is 4 times as heavy as her. How much does her older brother's weight in kg?

3. Tim is painting his storage shed. He buys 4 gallons of white paint and 3 gallons of blue paint. If each gallon of white paint costs \$15.72 and each gallon of blue paint is \$21.87, how much will Tim spend in all on paint?
4. Ribbon is sold at 3 yards for \$6.33. Jackie bought 24 yards of ribbon for a project. How much did she pay?

A

Correct _____

Subtract.

1	$5 - 1 =$	.	23	$7.985 - 0.002 =$	.
2	$5.9 - 1 =$	.	24	$7.985 - 0.004 =$	.
3	$5.93 - 1 =$	.	25	$2.7 - 0.1 =$	.
4	$5.932 - 1 =$	.	26	$2.785 - 0.1 =$	.
5	$5.932 - 2 =$	.	27	$2.785 - 0.5 =$	.
6	$5.932 - 4 =$	.	28	$4.913 - 0.4 =$	.
7	$0.5 - 0.1 =$	.	29	$3.58 - 0.01 =$	.
8	$0.53 - 0.1 =$	.	30	$3.586 - 0.01 =$	.
9	$0.539 - 0.1 =$	.	31	$3.586 - 0.05 =$	.
10	$8.539 - 0.1 =$	.	32	$7.982 - 0.04 =$	.
11	$8.539 - 0.2 =$	.	33	$6.126 - 0.001 =$	.
12	$8.539 - 0.4 =$	.	34	$6.126 - 0.004 =$	.
13	$0.05 - 0.01 =$	.	35	$9.348 - 0.006 =$	.
14	$0.057 - 0.01 =$	.	36	$8.347 - 0.3 =$	.
15	$1.057 - 0.01 =$	.	37	$9.157 - 0.05 =$	.
16	$1.857 - 0.01 =$	.	38	$6.879 - 0.009 =$	.
17	$1.857 - 0.02 =$	.	39	$6.548 - 2 =$	.
18	$1.857 - 0.04 =$	.	40	$6.548 - 0.2 =$	.
19	$0.005 - 0.001 =$.	41	$6.548 - 0.02 =$.
20	$7.005 - 0.001 =$.	42	$6.548 - 0.002 =$.
21	$7.905 - 0.001 =$.	43	$6.196 - 0.06 =$.
22	$7.985 - 0.001 =$.	44	$9.517 - 0.004 =$.

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Lesson 13:

Divide decimals by single-digit whole numbers involving easily identifiable multiples using place value understanding and relate to a written method.

Date:

6/28/13



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engage^{ny}

1.F.8

B Improvement _____ # Correct _____

Subtract.

1	$6 - 1 =$.	23	$7.986 - 0.002 =$.
2	$6.9 - 1 =$.	24	$7.986 - 0.004 =$.
3	$6.93 - 1 =$	.	25	$3.7 - 0.1 =$	.
4	$6.932 - 1 =$	.	26	$3.785 - 0.1 =$	.
5	$6.932 - 2 =$	.	27	$3.785 - 0.5 =$	.
6	$6.932 - 4 =$	.	28	$5.924 - 0.4 =$	.
7	$0.6 - 0.1 =$	.	29	$4.58 - 0.01 =$	.
8	$0.63 - 0.1 =$	.	30	$4.586 - 0.01 =$	.
9	$0.639 - 0.1 =$	.	31	$4.586 - 0.05 =$	.
10	$8.639 - 0.1 =$	.	32	$6.183 - 0.04 =$	.
11	$8.639 - 0.2 =$	.	33	$7.127 - 0.001 =$	.
12	$8.639 - 0.4 =$	.	34	$7.127 - 0.004 =$	.
13	$0.06 - 0.01 =$	.	35	$1.459 - 0.006 =$	.
14	$0.067 - 0.01 =$	.	36	$8.457 - 0.4 =$	.
15	$1.067 - 0.01 =$	.	37	$1.267 - 0.06 =$	.
16	$1.867 - 0.01 =$	.	38	$7.981 - 0.001 =$	.
17	$1.867 - 0.02 =$	.	39	$7.548 - 2 =$	.
18	$1.867 - 0.04 =$	.	40	$7.548 - 0.2 =$	.
19	$0.006 - 0.001 =$.	41	$7.548 - 0.02 =$.
20	$7.006 - 0.001 =$.	42	$7.548 - 0.002 =$.
21	$7.906 - 0.001 =$.	43	$7.197 - 0.06 =$.
22	$7.986 - 0.001 =$.	44	$1.627 - 0.004 =$.

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Name _____ Date _____

1. Complete the sentences with the correct number of units and complete the equation.

a. 4 groups of _____ tenths is 1.6. $1.6 \div 4 =$ _____

b. 8 groups of _____ hundredths is 0.32. $0.32 \div 8 =$ _____

c. 7 groups of _____ thousandths is 0.084. $.084 \div 7 =$ _____

d. 5 groups of _____ tenths is 2.0 $2.0 \div 5 =$ _____

2. Complete the number sentence. Express the quotient in units and then in standard form.

a. $4.2 \div 7 =$ _____ tenths $\div 7 =$ _____ tenths $=$ _____

b. $2.64 \div 2 =$ _____ ones $\div 2 +$ _____ hundredths $\div 2$

$=$ _____ ones $+$ _____ hundredths

$=$ _____

c. $12.64 \div 2 =$ _____ ones $\div 2 +$ _____ hundredths $\div 2$

$=$ _____ ones $+$ _____ hundredths

$=$ _____

d. $4.26 \div 6 =$ _____ tenths $\div 6 +$ _____ hundredths $\div 6$

$=$ _____

$=$ _____

e. $4.236 \div 6 =$ _____

$=$ _____

$=$ _____

3. Find the quotients. Then use words, numbers, or pictures to describe any relationships you notice between each pair of problems and quotients.

a. $32 \div 8 =$ _____ $3.2 \div 8 =$ _____

b. $81 \div 9 =$ _____ $0.081 \div 9 =$ _____

4. Are the quotients below reasonable? Explain your answer.

a. $5.6 \div 7 = 8$

b. $56 \div 7 = 0.8$

c. $.56 \div 7 = 0.08$

5. 12.48 milliliters of medicine were separated into doses of 4 ml each. How many doses were made?
6. The price of most milk in 2013 is around \$3.28 a gallon. This is eight times as much as you would have probably paid for a gallon of milk in the 1950's. What was the cost for a gallon of milk during the 1950's? Use a tape diagram and show your calculations.

Name _____

Date _____

1. Complete the sentences with the correct number of units and complete the equation.

a. 3 groups of _____ tenths is 1.5 $1.5 \div 3 =$ _____

b. 6 groups of _____ hundredths is 0.24 $0.24 \div 6 =$ _____

c. 5 groups of _____ thousandths is 0.045 $0.045 \div 5 =$ _____

2. Complete the number sentence. Express the quotient in units and then in standard form.

a. $9.36 \div 3 =$ _____ ones $\div 3 +$ _____ hundredths $\div 3$
 $=$ _____ ones $+$ _____ hundredths
 $=$ _____

b. $36.012 \div 3 =$ _____ ones $\div 3 +$ _____ thousandths $\div 3$
 $=$ _____ ones $+$ _____ thousandths
 $=$ _____

c. $3.55 \div 5 =$ _____ tenths $\div 5 +$ _____ hundredths $\div 5$
 $=$ _____
 $=$ _____

d. $3.545 \div 5 =$ _____
= _____
= _____

3. Find the quotients. Then use words, numbers, or pictures to describe any relationships you notice between each pair of problems and quotients.

a. $21 \div 7 =$ _____ $2.1 \div 7 =$ _____

b. $48 \div 8 =$ _____ $0.048 \div 8 =$ _____

4. Are the quotients below reasonable? Explain your answer.

a. $0.54 \div 6 = 9$

b. $5.4 \div 6 = 0.9$

c. $54 \div 6 = 0.09$

5. A toy airplane costs \$4.84. It costs 4 times as much as a toy car. What is the cost of the toy car?
6. Julian bought 3.9 liters of cranberry juice and Jay bought 8.74 liters of apple juice. They mixed the two juices together then poured them equally into 2 bottles. How many liters of juice are in each bottle?

Name _____

Date _____

1. Draw number disks on the place value chart to solve. Show your steps using the standard algorithm.

a. $4.236 \div 3 =$ _____

Ones	Tenths	Hundredths	Thousandths
b.			
c.			
d.			
e.			
f.			
g.			
h.			
i.			

$$3 \overline{) 4.236}$$

b. $1.324 \div 2 =$ _____

Ones	Tenths	Hundredths	Thousandths

$$2 \overline{) 1.324}$$

2. Solve using the standard algorithm.

a. $0.78 \div 3 =$ _____	b. $7.28 \div 4 =$ _____	c. $17.45 \div 5 =$ _____
--------------------------	--------------------------	---------------------------

3. Grayson wrote the following in her math journal: $1.47 \div 7 = 2.1$

Use words, numbers and pictures to explain why Grayson's thinking is incorrect.

4. Mrs. Nguyen used 1.48 meters of netting to make 4 identical mini hockey goals. How much netting did she use per goal?

5. Esperanza usually buys avocados for \$0.94 apiece. During a sale, she gets 5 avocados for \$4.10. How much money did she save per avocado? Use a tape diagram and show your calculations.

Name _____

Date _____

1. Draw number disks on the place value chart to solve. Show your steps using long division.

a. $5.241 \div 3 =$ _____

Ones	Tenths	Hundredths	Thousandths

$$3 \overline{) 5.241}$$

b. $3.445 \div 5 =$ _____

Ones	Tenths	Hundredths	Thousandths

$$5 \overline{) 3.445}$$

2. Solve using the standard algorithm.

a. $0.64 \div 4 = \underline{\hspace{2cm}}$

b. $6.45 \div 5 = \underline{\hspace{2cm}}$

c. $16.404 \div 6 = \underline{\hspace{2cm}}$

3. Mrs. Mayuko paid \$40.68 for 3 kg of shrimp. What's the cost of 1 kg of shrimp?
4. The total weight of 6 pieces of butter and a bag of sugar is 3.8 lb. If the weight of the bag of sugar is 1.4 lb., what's the weight of each piece of butter?

A

Correct _____

Solve.

1	$10 \times 10 =$		23	$24 \times 10^2 =$	
2	$10^2 =$		24	$24.7 \times 10^2 =$	
3	$10^2 \times 10 =$		25	$24.07 \times 10^2 =$	
4	$10^3 =$		26	$24.007 \times 10^2 =$	
5	$10^3 \times 10 =$		27	$53 \times 1000 =$	
6	$10^4 =$		28	$53 \times 10^3 =$	
7	$3 \times 100 =$		29	$53.8 \times 10^3 =$	
8	$3 \times 10^2 =$		30	$53.08 \times 10^3 =$	
9	$3.1 \times 10^2 =$		31	$53.082 \times 10^3 =$	
10	$3.15 \times 10^2 =$		32	$9.1 \times 10,000 =$	
11	$3.157 \times 10^2 =$		33	$9.1 \times 10^4 =$	
12	$4 \times 1000 =$		34	$91.4 \times 10^4 =$	
13	$4 \times 10^3 =$		35	$9.104 \times 10^4 =$	
14	$4.2 \times 10^3 =$		36	$9.107 \times 10^4 =$	
15	$4.28 \times 10^3 =$		37	$1.2 \times 10^2 =$	
16	$4.283 \times 10^3 =$		38	$0.35 \times 10^3 =$	
17	$5 \times 10,000 =$		39	$5.492 \times 10^4 =$	
18	$5 \times 10^4 =$		40	$8.04 \times 10^3 =$	
19	$5.7 \times 10^4 =$		41	$7.109 \times 10^4 =$	
20	$5.73 \times 10^4 =$		42	$0.058 \times 10^2 =$	
21	$5.731 \times 10^4 =$		43	$20.78 \times 10^3 =$	
22	$24 \times 100 =$		44	$420.079 \times 10^2 =$	

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B Solve. Improvement _____ # Correct _____

1	$10 \times 10 \times 1 =$		23	$42 \times 10^2 =$	
2	$10^2 =$		24	$42.7 \times 10^2 =$	
3	$10^2 \times 10 =$		25	$42.07 \times 10^2 =$	
4	$10^3 =$		26	$42.007 \times 10^2 =$	
5	$10^3 \times 10 =$		27	$35 \times 1000 =$	
6	$10^4 =$		28	$35 \times 10^3 =$	
7	$4 \times 100 =$		29	$35.8 \times 10^3 =$	
8	$4 \times 10^2 =$		30	$35.08 \times 10^3 =$	
9	$4.1 \times 10^2 =$		31	$35.082 \times 10^3 =$	
10	$4.15 \times 10^2 =$		32	$8.1 \times 10,000 =$	
11	$4.157 \times 10^2 =$		33	$8.1 \times 10^4 =$	
12	$5 \times 1000 =$		34	$81.4 \times 10^4 =$	
13	$5 \times 10^3 =$		35	$8.104 \times 10^4 =$	
14	$5.2 \times 10^3 =$		36	$8.107 \times 10^4 =$	
15	$5.28 \times 10^3 =$		37	$1.3 \times 10^2 =$	
16	$5.283 \times 10^3 =$		38	$0.53 \times 10^3 =$	
17	$7 \times 10,000 =$		39	$4.391 \times 10^4 =$	
18	$7 \times 10^4 =$		40	$7.03 \times 10^3 =$	
19	$7.5 \times 10^4 =$		41	$6.109 \times 10^4 =$	
20	$7.53 \times 10^4 =$		42	$0.085 \times 10^2 =$	
21	$7.531 \times 10^4 =$		43	$30.87 \times 10^3 =$	
22	$42 \times 100 =$		44	$530.097 \times 10^2 =$	

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Name _____ Date _____

1. Draw number disks on the place value chart to solve, and show your steps using long division.

a. $0.5 \div 2 =$ _____

Ones	●	Tenths	Hundredths	Thousandths

$$2 \overline{) 0.5}$$

b. $5.7 \div 4 =$ _____

Ones	●	Tenths	Hundredths	Thousandths

$$4 \overline{) 5.7}$$

2. Solve using the standard algorithm.

a. $0.9 \div 2 =$	b. $9.1 \div 5 =$	c. $9 \div 6 =$
d. $0.98 \div 4 =$	e. $9.3 \div 6 =$	f. $91 \div 4 =$

3. Six bakers shared 7.5 kg of flour equally. How much flour did they each receive?

4. Mrs. Henderson makes punch by mixing 10.9 liters of apple juice, 600 milliliters of orange juice, and 8 liters of ginger ale. She pours the mixture equally into 6 large punch bowls. How much punch is in each bowl? Express your answer in liters.

Name _____ Date _____

1. Draw number disks on the place value chart to solve, and show your steps using long division.

a. $0.7 \div 4 =$ _____

Ones	●	Tenths	Hundredths	Thousandths

$$4 \overline{) 0.7}$$

b. $8.1 \div 5 =$ _____

Ones	●	Tenths	Hundredths	Thousandths

$$5 \overline{) 8.1}$$

2. Solve using the standard algorithm.

a. $0.7 \div 2 =$	b. $3.9 \div 6 =$	c. $9 \div 4 =$
d. $0.92 \div 2 =$	e. $9.4 \div 4 =$	f. $91 \div 8 =$

3. A rope 8.7 m long is cut into 5 equal pieces. How long is each piece?

4. Yasmine bought 6 gallons of apple juice. After filling up 4 bottles of the same size with apple juice, she had 0.3 gallon of apple juice left. What's the amount of apple juice in each bottle?

A

Correct _____

Solve.

1	$10 \times 10 =$		23	$3,400 \div 10^2 =$	
2	$10^2 =$		24	$3,470 \div 10^2 =$	
3	$10^2 \times 10 =$		25	$3,407 \div 10^2 =$	
4	$10^3 =$		26	$3,400.7 \div 10^2 =$	
5	$10^3 \times 10 =$		27	$63,000 \div 1000 =$	
6	$10^4 =$		28	$63,000 \div 10^3 =$	
7	$3 \times 100 =$		29	$63,800 \div 10^3 =$	
8	$3 \times 10^2 =$		30	$63,080 \div 10^3 =$	
9	$3.1 \times 10^2 =$		31	$63,082 \div 10^3 =$	
10	$3.15 \times 10^2 =$		32	$81,000 \div 10,000 =$	
11	$3.157 \times 10^2 =$		33	$81,000 \div 10^4 =$	
12	$4 \times 1000 =$		34	$81,400 \div 10^4 =$	
13	$4 \times 10^3 =$		35	$81,040 \div 10^4 =$	
14	$4.2 \times 10^3 =$		36	$91,070 \div 10^4 =$	
15	$4.28 \times 10^3 =$		37	$120 \div 10^2 =$	
16	$4.283 \times 10^3 =$		38	$350 \div 10^3 =$	
17	$5 \times 10,000 =$		39	$45,920 \div 10^4 =$	
18	$5 \times 10^4 =$		40	$6,040 \div 10^3 =$	
19	$5.7 \times 10^4 =$		41	$61,080 \div 10^4 =$	
20	$5.73 \times 10^4 =$		42	$7.8 \div 10^2 =$	
21	$5.731 \times 10^4 =$		43	$40,870 \div 10^3 =$	
22	$24 \times 100 =$		44	$52,070.9 \div 10^2 =$	

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B Solve. Improvement _____ # Correct _____

1	$10 \times 10 \times 1 =$		23	$4,370 \div 10^2 =$	
2	$10^2 =$		24	$4,370 \div 10^2 =$	
3	$10^2 \times 10 =$		25	$4,307 \div 10^2 =$	
4	$10^3 =$		26	$4,300.7 \div 10^2 =$	
5	$10^3 \times 10 =$		27	$73,000 \div 1000 =$	
6	$10^4 =$		28	$73,000 \div 10^3 =$	
7	$500 \div 100 =$		29	$73,800 \div 10^3 =$	
8	$500 \div 10^2 =$		30	$73,080 \div 10^3 =$	
9	$510 \div 10^2 =$		31	$73,082 \div 10^3 =$	
10	$516 \div 10^2 =$		32	$91,000 \div 10,000 =$	
11	$516.7 \div 10^2 =$		33	$91,000 \div 10^4 =$	
12	$6,000 \div 1000 =$		34	$91,400 \div 10^4 =$	
13	$6,000 \div 10^3 =$		35	$91,040 \div 10^4 =$	
14	$6,200 \div 10^3 =$		36	$81,070 \div 10^4 =$	
15	$6,280 \div 10^3 =$		37	$170 \div 10^2 =$	
16	$6,283 \div 10^3 =$		38	$450 \div 10^3 =$	
17	$70,000 \div 10,000 =$		39	$54,920 \div 10^4 =$	
18	$70,000 \div 10^4 =$		40	$4,060 \div 10^3 =$	
19	$76,000 \div 10^4 =$		41	$71,080 \div 10^4 =$	
20	$76,300 \div 10^4 =$		42	$8.7 \div 10^2 =$	
21	$76,310 \div 10^4 =$		43	$60,470 \div 10^3 =$	
22	$4,300 \div 100 =$		44	$72,050.9 \div 10^2 =$	

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Name _____

Date _____

Solve.

1. Mr. Frye distributed \$126 equally among his 4 children for their weekly allowance.
 - a. How much money did each child receive?

 - b. John, the oldest child, paid his siblings to do his chores. If John pays his allowance equally to his brother and two sisters, how much money will each of his siblings have received in all?

2. Ava is 23 cm taller than Olivia, and Olivia is half the height of Lucas. If Lucas is 1.78 m tall, how tall are Ava and Olivia? Express their heights in centimeters.

3. Mr. Hower can buy a computer with a down payment of \$510 and 8 monthly payments of \$35.75. If he pays cash for the computer, the cost is \$699.99. How much money will he save if he pays cash for the computer instead of paying for it in monthly payments?
4. Brandon mixed 6.83 lbs. of cashews with 3.57 lbs. of pistachios. After filling up 6 bags that were the same size with the mixture, he had 0.35 lbs. of nuts left. What was the weight of each bag? Use a tape diagram and show your calculations.

5. The bakery bought 4 bags of flour containing 3.5 kg each. 475 g of flour are needed to make a batch of muffins and 0.65 kg is needed to make a loaf of bread.
- If 4 batches of muffins and 5 loaves of bread are baked, how much flour will be left? Give your answer in kilograms.
 - The remaining flour is stored in bins that hold 3 kg each. How many bins will be needed to store the flour? Explain your answer.

Name _____

Date _____

Solve using tape diagrams.

1. A gardener installed 42.6 meters of fencing in a week. He installed 13.45 meters on Monday and 9.5 meters on Tuesday. He installed the rest of the fence in equal lengths on Wednesday through Friday. How many meters of fencing did he install on each of the last three days?
2. Jenny charges \$9.15 an hour to babysit toddlers and \$7.45 an hour to babysit school-aged children.
 - a. If Jenny babysat toddlers for 9 hours and school-aged children for 6 hours, how much money did she earn in all?
 - b. Jenny wants to earn \$1300 by the end of the summer. How much more will she need to earn to meet her goal?

3. A table and 8 chairs weigh 235.68 pounds together. If the table weighs 157.84 lbs., what is the weight of one chair in pounds?
4. Mrs. Cleaver mixes 1.24 liters of red paint with 3 times as much blue paint to make purple paint. She pours the paint equally into 5 containers. How much blue paint is in each cup? Give you answer in liters.

Name _____

Date _____

1. Estimate the product. Solve using an area model and the standard algorithm. Remember to express your products in standard form.

a. $22 \times 2.4 \approx \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

24 (tenths)

$$\begin{array}{r} 24 \\ \times 22 \\ \hline \end{array}$$

b. $3.1 \times 33 \approx \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

31 (tenths)

$$\begin{array}{r} 31 \\ \times 33 \\ \hline \end{array}$$

2. Estimate, and then use the standard algorithm to solve. Express your products in standard form.

a. $3.2 \times 47 \approx \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

b. $3.2 \times 94 \approx \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

32 (tenths)

$$\begin{array}{r} 32 \\ \times 47 \\ \hline \end{array}$$

32 (tenths)

$$\begin{array}{r} 32 \\ \times 94 \\ \hline \end{array}$$

c. 6.3×44

d. 14.6×17

e. 8.2×34

f. 160.4×17

3. Michelle multiplied 3.4×52 . She incorrectly wrote 1,768 as her product. Use words, numbers, and pictures to explain Michelle's mistake.

4. A wire is bent to form a square with a perimeter of 16.4 cm. How much wire would be needed to form 25 such squares? Express your answer in meters.

Name _____

Date _____

1. Estimate the product. Solve using an area model and the standard algorithm. Remember to express your products in standard form.

a. $53 \times 1.2 \approx \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

12 (tenths)

$$\begin{array}{r} \times 53 \\ \hline \end{array}$$

b. $2.1 \times 82 \approx \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

21 (tenths)

$$\begin{array}{r} \times 82 \\ \hline \end{array}$$

2. Estimate, and then use the standard algorithm to solve. Express your products in standard form.

a. $4.2 \times 34 \approx \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

42 (tenths)

$$\begin{array}{r} \times 34 \\ \hline \end{array}$$

b. $65 \times 5.8 \approx \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

58 (tenths)

$$\begin{array}{r} \times 65 \\ \hline \end{array}$$

c. 3.3×16

d. 15.6×17

e. 73×2.4

f. 193.5×57

3. Mr. Jansen is building an ice rink in his backyard that will measure 8.4 meters by 22 meters. What is the area of the rink?

4. Rachel runs 3.2 miles each week day and 1.5 miles each day of the weekend. How many miles will she have run in 6 weeks?

A

Correct _____

Multiply.

1	$3 \times 3 =$		23	$8 \times 5 =$	
2	$0.3 \times 3 =$		24	$0.8 \times 5 =$	
3	$0.03 \times 3 =$		25	$0.08 \times 5 =$	
4	$3 \times 2 =$		26	$0.06 \times 5 =$	
5	$0.3 \times 2 =$		27	$0.06 \times 3 =$	
6	$0.03 \times 2 =$		28	$0.6 \times 5 =$	
7	$2 \times 2 =$		29	$0.06 \times 2 =$	
8	$0.2 \times 2 =$		30	$0.06 \times 7 =$	
9	$0.02 \times 2 =$		31	$0.9 \times 6 =$	
10	$5 \times 3 =$		32	$0.06 \times 9 =$	
11	$0.5 \times 3 =$		33	$0.09 \times 9 =$	
12	$0.05 \times 3 =$		34	$0.8 \times 8 =$	
13	$0.04 \times 3 =$		35	$0.07 \times 7 =$	
14	$0.4 \times 3 =$		36	$0.6 \times 6 =$	
15	$4 \times 3 =$		37	$0.05 \times 5 =$	
16	$5 \times 5 =$		38	$0.6 \times 8 =$	
17	$0.5 \times 5 =$		39	$0.07 \times 9 =$	
18	$0.05 \times 5 =$		40	$0.8 \times 3 =$	
19	$7 \times 4 =$		41	$0.09 \times 6 =$	
20	$0.7 \times 4 =$		42	$0.5 \times 7 =$	
21	$0.07 \times 4 =$		43	$0.12 \times 4 =$	
22	$0.9 \times 4 =$		44	$0.12 \times 9 =$	

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B Improvement _____ # Correct _____

Multiply.

1	$2 \times 2 =$		23	$6 \times 5 =$	
2	$0.2 \times 2 =$		24	$0.6 \times 5 =$	
3	$0.02 \times 2 =$		25	$0.06 \times 5 =$	
4	$4 \times 2 =$		26	$0.08 \times 5 =$	
5	$0.4 \times 2 =$		27	$0.08 \times 3 =$	
6	$0.04 \times 2 =$		28	$0.8 \times 5 =$	
7	$3 \times 3 =$		29	$0.08 \times 2 =$	
8	$0.3 \times 3 =$		30	$0.08 \times 7 =$	
9	$0.03 \times 3 =$		31	$0.9 \times 8 =$	
10	$4 \times 3 =$		32	$0.08 \times 9 =$	
11	$0.4 \times 3 =$		33	$0.9 \times 9 =$	
12	$0.04 \times 3 =$		34	$0.08 \times 8 =$	
13	$0.05 \times 3 =$		35	$0.7 \times 7 =$	
14	$0.5 \times 3 =$		36	$0.06 \times 6 =$	
15	$5 \times 3 =$		37	$0.5 \times 5 =$	
16	$4 \times 4 =$		38	$0.06 \times 8 =$	
17	$0.4 \times 4 =$		39	$0.7 \times 9 =$	
18	$0.04 \times 4 =$		40	$0.08 \times 3 =$	
19	$8 \times 4 =$		41	$0.9 \times 6 =$	
20	$0.8 \times 4 =$		42	$0.05 \times 7 =$	
21	$0.08 \times 4 =$		43	$0.12 \times 6 =$	
22	$0.6 \times 4 =$		44	$0.12 \times 8 =$	

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Name _____

Date _____

1. Estimate the product. Solve using the standard algorithm. Use the thought bubbles to show your thinking. (Draw an area model on a separate sheet if it helps you.)

a. $1.38 \times 32 \approx$ _____ \times _____ $=$ _____

Think: 138
(1.38×100)

1.38

$\times 32$

b. $3.55 \times 89 \approx$ _____ \times _____ $=$ _____

3.55

$\times 89$

$1.38 \times 32 =$ _____

Think! 4416 is 100
times too large! What
is the real product?

$3.55 \times 89 =$ _____

2. Solve using the standard algorithm.

a. 5.04×8

b. 147.83×67

c. 83.41×504

d. 0.56×432

3. Use the whole number product and place value reasoning to place the decimal point in the second product. Explain how you know.
- a. If $98 \times 768 = 75,264$ then $98 \times 7.68 =$ _____
- b. If $73 \times 1,563 = 114,099$ then $73 \times 15.63 =$ _____
- c. If $46 \times 1,239 = 56,994$ then $46 \times 123.9 =$ _____
4. Jenny buys 22 pens that cost \$1.15 each and 15 markers that cost \$2.05 each. How much will Jenny spend?
5. A living room measures 24 feet by 15 feet. An adjacent square dining room measures 13 feet on each side. If carpet costs \$6.98 per square foot, what is the total cost of putting carpet in both rooms?

Name _____ Date _____

1. Estimate the product. Solve using the standard algorithm. Use the thought bubbles to show your thinking. (Draw an area model on a separate sheet if it helps you.)

a. $2.42 \times 12 \approx$ _____ \times _____ $=$ _____

Think: 242
(2.42×100)

$$\begin{array}{r} 2.42 \\ \times 12 \\ \hline \end{array}$$

b. $4.13 \times 37 \approx$ _____ \times _____ $=$ _____

$$\begin{array}{r} 4.13 \\ \times 37 \\ \hline \end{array}$$

$2.42 \times 12 =$ _____



$4.13 \times 37 =$ _____



2. Solve using the standard algorithm.

a. 2.03×13

c. 371.23×53

b. 53.16×34

d. 1.57×432

3. Use the whole number product and place value reasoning to place the decimal point in the second product. Explain how you know.
- a. If $36 \times 134 = 4,824$ then $36 \times 1.34 =$ _____
- b. If $84 \times 2,674 = 224,616$ then $84 \times 26.74 =$ _____
- c. $19 \times 3,211 = 61,009$ then $321.1 \times 19 =$ _____
4. A slice of pizza costs \$1.57. How much does 27 slices cost?
5. A spool of ribbon holds 6.75 meters. If the craft club buys 21 spools:
- a. What is the total cost if the ribbon sells for \$2 per meter?
- b. If the club uses 76.54 meters to complete a project, how much ribbon will be left?

Name _____

Date _____

1. Estimate, and then solve using the standard algorithm. You may draw an area model if it helps you.

a. $1.21 \times 14 \approx \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

b. $2.45 \times 305 \approx \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

2. Estimate, and then solve using the standard algorithm. Use a separate sheet to draw the area model if it helps you.

a. 1.23×12

b. 1.3×26

c. 0.23×14

d. 0.45×26

e. 7.06×28

f. 6.32×223

g. 7.06×208

h. 151.46×555

3. Denise walks on the beach every afternoon. In the month of July she walked 3.45 miles each day. How far did Denise walk during the month of July?
4. A gallon of gas costs \$4.34. Greg puts 12 gallons of gas in his car. He has a 50-dollar bill. Tell how much money Greg will have left, or how much more money he will need. Show all your calculations.
5. Seth drinks a glass of orange juice every day that contains 0.6 grams of Vitamin C. He eats a serving of strawberries for snack after school every day that contains 0.35 grams of Vitamin C. How many grams of Vitamin C does Seth consume in 3 weeks?

Name _____

Date _____

1. Estimate, and then solve using the standard algorithm. You may draw an area model if it helps you.

a. $24 \times 2.31 \approx \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

$$\begin{array}{r} 2.31 \\ \times 24 \\ \hline \end{array}$$

b. $5.42 \times 305 \approx \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

$$\begin{array}{r} 5.42 \\ \times 305 \\ \hline \end{array}$$

2. Estimate, and then solve using the standard algorithm. Use a separate sheet to draw the area model if it helps you.

a. 1.23×21

b. 3.2×41

c. 0.32×41

d. 0.54×62

e. 6.09×28

f. 6.83×683

g. 6.09×208

h. 171.76×555

3. Eric walks 2.75 miles to and from work every day for an entire year. How many miles did he walk?
4. Art galleries often price paintings by the square inch. If a painting measures 22.5 inches by 34 inches and costs \$4.15 per square inch, what is the selling price for the painting?
5. Gerry spends \$1.25 each day on lunch at school. On Fridays she buys an extra snack for \$0.55. How much money will she spend in two weeks?

Name _____

Date _____

1. Complete the chart below with the measurement equivalents.

Feet	Inches
1	
2	
3	
4	
10	
12	
40	
45	
120	

Centimeters	Meters
	1
	2
	3
	4
	10
	12
	40
	45
	120

2. Explain how to convert feet to inches. Draw a number line or tape diagram to support your explanation.
3. Explain how to convert meters to centimeters. Draw a number line or tape diagram to support your explanation.

4. Convert. Use your Reference Sheet to remind you of the conversion factors. Show your work.

a. 27 ft = _____ in

d. 7 kg = _____ g

g. 3 km 85 m = _____ m

b. _____ oz = 54 lb

e. 4 mi = _____ yd = _____ ft

h. 2 qt = _____ pt = _____ fl oz

c. _____ pt = 21 qt

f. _____ L = 9 kL

i. _____ oz = 24 lb 15 oz

5. Emily's pet snake is 5 feet long. Kristen's snake is 50 inches long. Kristen says her snake is much longer because 50 is so much bigger than 5. Is Kristen right? Why or why not?

6. Ben helps his dad make chicken soup. Their recipe makes 15 cups of soup. If they each eat 2 cups and freeze the rest, will the leftovers fit in a 64-ounce container?

Name _____

Date _____

1. Complete the chart below with the measurement equivalents.

Liters	Milliliters
1	
2	
3	
4	
10	
15	
30	
100	

Quarts	Gallons
	1
	2
	3
	4
	10
	15
	30
	100

2. Convert.

a. 18 yd = _____ ft

d. 72 kl = _____ L

g. 5 km 14 m = _____ m

b. _____ oz = 23 lb

e. 2 mi = _____ yd = _____ ft

h. 31 gal = _____ qt = _____ pt

c. _____ cm = 64 m

f. _____ g = 35 kg

i. _____ fl oz = 56 c

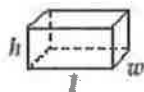
3. Jesse needs 13 gallons of paint to finish painting the exterior of his barn. If he uses 10 quarts of the paint for the doors, how many quarts will be left for the siding on the barn?

4. Ms. Lane's laptop stays on for 6 hours without being plugged in, and Mr. Trevor's laptop stays powered for 400 minutes. Whose laptop lasts longer?

5. The food pantry distributes 10-oz bags of rice. If three 5-lb bags are donated to the pantry, how many 10-ounce bags can be made?

Grade 5 Mathematics Reference Sheet

FORMULAS



Right Rectangular Prism

Volume = lwh

Volume = Bh

CONVERSIONS

1 centimeter = 10 millimeters

1 meter = 100 centimeters = 1,000 millimeters

1 kilometer = 1,000 meters

1 gram = 1,000 milligrams

1 kilogram = 1,000 grams

1 pound = 16 ounces

1 ton = 2,000 pounds

1 cup = 8 fluid ounces

1 pint = 2 cups

1 quart = 2 pints

1 gallon = 4 quarts

1 liter = 1,000 milliliters

1 kiloliter = 1,000 liters

1 mile = 5,280 feet

1 mile = 1,760 yards

COMMON CORE STATE STANDARDS for Mathematics

Name _____

Date _____

1. Convert. Use your Reference Sheet to help you remember the conversion factors.

a. $4.5 \text{ km} = \underline{\hspace{2cm}} \text{ m}$

d. $8.25 \text{ g} = \underline{\hspace{2cm}} \text{ mg}$

g. $0.5 \text{ mi} = \underline{\hspace{2cm}} \text{ ft}$

b. $\underline{\hspace{2cm}} \text{ fl oz} = 2.75 \text{ c}$

e. $3.25 \text{ gal} = \underline{\hspace{2cm}} \text{ qt}$

h. $7.9 \text{ m} = \underline{\hspace{2cm}} \text{ cm}$

c. $\underline{\hspace{2cm}} \text{ mL} = 4.85 \text{ L}$

f. $\underline{\hspace{2cm}} \text{ pt} = 16.5 \text{ qt}$

i. $\underline{\hspace{2cm}} \text{ oz} = 4.5 \text{ lb}$

2. Cassidy figured out that she makes \$0.75 every minute at her job. She works 7 hours 15 minutes every day.

a. How many minutes does she work in 4 days?

b. How much will Cassidy earn in 4 days?

3. Emma can't believe how huge the Statue of Liberty is. She finds more information about Lady Liberty. Help Emma fill in the rest of the chart and then answer the questions.

The Statue of Liberty's	CUSTOMARY UNITS		METRIC UNITS	
	Feet	Inches	Meters	Centimeters
Nose	4 ft 6 in		1.37 m	
Index Finger	8 ft		2.44 m	
Head	17ft 3 in		5.26 m	
Eye	2 ft 6 in		0.76 m	

Source: <http://www.nps.gov/stli/historyculture/statue-statistics.htm>

- Emma is 52 inches tall. Which of Lady Liberty's body parts above is the closest to Emma's height? What is the difference between these two measurements in inches?
- Emma's eye is 4 cm wide. How many of Emma's eyes lined up end to end would it take to stretch all the way across one of Lady Liberty's eyes?
- The length of Emma's neighborhood block is 0.19 km. About how many of the statue's heads would it take to cover the length of her block?
- Measured in meters, Lady Liberty's index finger is 4 times as long as Emma's leg. What is the length of Emma's leg in meters?

Name _____

Date _____

1. Convert. Use your Reference Sheet if necessary.

a. $2.7 \text{ kL} = \underline{\hspace{2cm}} \text{ L}$

d. $9.13 \text{ kg} = \underline{\hspace{2cm}} \text{ g}$

g. $1.3 \text{ tons} = \underline{\hspace{2cm}} \text{ lb}$

b. $\underline{\hspace{2cm}} \text{ fl oz} = 4.25 \text{ c}$

e. $4.75 \text{ gal} = \underline{\hspace{2cm}} \text{ qt}$

h. $0.75 \text{ mi} = \underline{\hspace{2cm}} \text{ yd}$

c. $\underline{\hspace{2cm}} \text{ m} = 1.45 \text{ km}$

f. $\underline{\hspace{2cm}} \text{ pt} = 12.5 \text{ qt}$

i. $\underline{\hspace{2cm}} \text{ oz} = 8.5 \text{ lb}$

2. Jennifer wants to convert 7.85 meters to centimeters, but she does not have paper, pencil, or a calculator. Describe a method she can use.

3. A standard hot tub holds 2.3 kiloliters of water. After filling up two of nine hot tubs, Johnson's water service truck empties. How many liters of water are still needed to fill the remaining tubs?

A

Correct _____

Write in feet and inches.

1	12 in =	ft	in	23	17 in =	ft	in
2	13 in =	ft	in	24	24 in =	ft	in
3	14 in =	ft	in	25	28 in =	ft	in
4	15 in =	ft	in	26	36 in =	ft	in
5	22 in =	ft	in	27	45 in =	ft	in
6	20 in =	ft	in	28	48 in =	ft	in
7	24 in =	ft	in	29	59 in =	ft	in
8	25 in =	ft	in	30	60 in =	ft	in
9	26 in =	ft	in	31	64 in =	ft	in
10	30 in =	ft	in	32	68 in =	ft	in
11	34 in =	ft	in	33	71 in =	ft	in
12	35 in =	ft	in	34	73 in =	ft	in
13	36 in =	ft	in	35	72 in =	ft	in
14	37 in =	ft	in	36	80 in =	ft	in
15	46 in =	ft	in	37	84 in =	ft	in
16	40 in =	ft	in	38	90 in =	ft	in
17	48 in =	ft	in	39	96 in =	ft	in
18	58 in =	ft	in	40	100 in =	ft	in
19	49 in =	ft	in	41	108 in =	ft	in
20	47 in =	ft	in	42	117 in =	ft	in
21	50 in =	ft	in	43	104 in =	ft	in
22	12 in =	ft	in	44	93 in =	ft	in

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B

Improvement _____ # Correct _____

Write in feet and inches.

1	120 in =	ft	in	23	16 in =	ft	in
2	12 in =	ft	in	24	24 in =	ft	in
3	13 in =	ft	in	25	29 in =	ft	in
4	14 in =	ft	in	26	36 in =	ft	in
5	20 in =	ft	in	27	42 in =	ft	in
6	22 in =	ft	in	28	48 in =	ft	in
7	24 in =	ft	in	29	59 in =	ft	in
8	25 in =	ft	in	30	60 in =	ft	in
9	26 in =	ft	in	31	63 in =	ft	in
10	34 in =	ft	in	32	67 in =	ft	in
11	30 in =	ft	in	33	70 in =	ft	in
12	35 in =	ft	in	34	73 in =	ft	in
13	36 in =	ft	in	35	72 in =	ft	in
14	46 in =	ft	in	36	77 in =	ft	in
15	37 in =	ft	in	37	84 in =	ft	in
16	40 in =	ft	in	38	89 in =	ft	in
17	48 in =	ft	in	39	96 in =	ft	in
18	49 in =	ft	in	40	99 in =	ft	in
19	58 in =	ft	in	41	108 in =	ft	in
20	47 in =	ft	in	42	115 in =	ft	in
21	50 in =	ft	in	43	103 in =	ft	in
22	12 in =	ft	in	44	95 in =	ft	in

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4. A crane operator unloaded the following cargo:
- 5 pallets of lumber. Each pallet weighs 7.3 tons.
 - 9 pallets of concrete. Each pallet weighs 4.8 tons.
- a. How many pounds of cargo were unloaded?
- b. Which load of cargo was heavier, the lumber or the concrete? How many pounds heavier?
5. A punch recipe calls for 2 quarts of ginger ale, 3 pints of orange juice, 2 pints of pineapple juice, 1 cup of lemon juice, and 3 ounces of lime juice. Edna plans to make a double-recipe. How many fluid ounces will there be in a double-recipe of punch?

6. Use the table below to answer the questions that follow.

TOWN OF WAPPINGERS FALLS Distances from Akun's House	
Location	Distance
Cibo Deli	2.5 miles
W.F. Library	15,840 feet
Elementary School	5,280 yards
Youth Ball Field	1 mile 880 yards

- a. If Akun travels from his house to the Youth Ball Field and back, how many miles did he travel?
- b. Which two locations are equidistant from Akun's house?
- c. Three days a week, Akun walks to school. After school, the bus drops him off at the library to do his homework. He walks home afterwards. How far, in feet, does Akun walk on those three days?

Name _____

Date _____

Solve.

1. Jocelyn borrowed 3.75 kg of flour from her grandmother to bake 3 batches of cookies and 2 cakes. Each cookie recipe called for 225 grams of flour. Each cake recipe needed 1.2 kg of flour. After baking, how much flour was Jocelyn able to return to her grandmother?
2. The new athletic facility on the downtown campus measures 0.74 km by 0.4 km. How many square meters is the facility?
3. It is recommended that athletes drink a minimum of 0.24 L of water for every 20 minutes of athletic activity. John plays tennis for 3 hours. His water bottle holds 1,500 mL. Will he have enough water to meet the minimum requirement? If so, how much water will he have left? If not, what is the least amount of water he will need to put in his bottle when it is empty? Express your answer in liters.

4. A Rottweiler gave birth to 3 puppies. The first puppy weighed 5.1 kg. The second weighed 206 g less than the first. The third puppy weighed 0.2 kg more than the second.
- What is the total weight of the litter in grams?
 - How much more did the heaviest puppy weight than the lightest one?
 - The mother weighed 4 times the total weight of her litter. What was her weight in kilograms?
5. A courier charges \$6.25 to ship a 2 lb-package. For each ounce over 2 lb, they charge an additional \$0.35 per ounce.
- How much would it cost to ship a package weighing 4 lb 6 oz?
 - Which would be less expensive? Sending two packages weighing 2 lb 4 oz each, or combining them into one package weighing 4 lb 8 oz? What is the difference in price?

Name _____ Date _____

1. Divide. Show the division in the right hand column in two steps. The first two have been done for you.

a. $1.2 \div 6 = 0.2$

b. $1.2 \div 60 = (1.2 \div 6) \div 10 = 0.2 \div 10 = 0.02$

c. $2.4 \div 4 =$ _____

d. $2.4 \div 40 =$ _____

e. $14.7 \div 7 =$ _____

f. $14.7 \div 70 =$ _____

g. $3.4 \div 2 =$ _____

h. $0.34 \div 20 =$ _____

i. $0.45 \div 9 =$ _____

j. $0.45 \div 90 =$ _____

k. $3.45 \div 3 =$ _____

l. $34.5 \div 300 =$ _____

2. Use place value reasoning and the first quotient to compute the second quotient. Explain your thought process.

a. $46.5 \div 5 = 9.3$

$46.5 \div 50 = \underline{\hspace{2cm}}$

b. $0.51 \div 3 = 0.17$

$0.51 \div 30 = \underline{\hspace{2cm}}$

c. $29.4 \div 70 = 0.42$

$2.94 \div 7 = \underline{\hspace{2cm}}$

d. $13.6 \div 40 = 0.34$

$13.6 \div 4 = \underline{\hspace{2cm}}$

3. 20 polar bears live at the zoo. In four weeks, they eat 9,732.8 pounds of food altogether. Assuming each bear is fed the same amount of food, how much food is used to feed one bear for a week? Round your answer to the nearest pound.
4. The total weight of 30 bags of flour and 4 bags of sugar is 42.6 kg. If each bag of sugar weighs 0.75 kg, what is the weight of each bag of flour?

Name _____ Date _____

1. Divide. Show the division in the right column in two steps. The first two have been done for you.

a. $1.8 \div 6 = 0.3$

g. $0.8 \div 4 =$ _____

b. $1.8 \div 60 = (1.8 \div 6) \div 10 = 0.3 \div 10 = 0.03$

h. $80 \div 400 =$ _____

c. $2.4 \div 8 =$ _____

i. $0.56 \div 7 =$ _____

d. $2.4 \div 80 =$ _____

j. $0.56 \div 70 =$ _____

e. $14.6 \div 2 =$ _____

k. $9.45 \div 9 =$ _____

f. $14.6 \div 20 =$ _____

l. $9.45 \div 900 =$ _____

2. Use place value reasoning and the first quotient to compute the second quotient. Use place value to explain how you placed the decimal point.

a. $65.6 \div 80 = 0.82$

$65.6 \div 8 = \underline{\hspace{2cm}}$

b. $2.5 \div 50 = 0.05$

$2.5 \div 5 = \underline{\hspace{2cm}}$

c. $19.2 \div 40 = 0.48$

$19.2 \div 4 = \underline{\hspace{2cm}}$

d. $39.6 \div 6 = 6.6$

$39.6 \div 60 = \underline{\hspace{2cm}}$

3. Chris rode his bike along the same route every day for 60 days. He logged that he had gone exactly 127.8 miles.

a. How many miles did he bike each day? Show your work to explain how you know.

b. How many miles did he bike over the course of two weeks?

4. 2.1 liters of coffee were equally distributed to 30 cups. How many milliliters of coffee were in each cup?

Name _____

Date _____

1. Estimate the quotients.

a. $3.24 \div 82 \approx$

b. $361.2 \div 61 \approx$

c. $7.15 \div 31 \approx$

d. $85.2 \div 31 \approx$

e. $27.97 \div 28 \approx$

2. Estimate the quotient in (a). Use your estimated quotient to estimate (b) and (c).

a. $7.16 \div 36 \approx$

b. $716 \div 36 \approx$

c. $71.6 \div 36 \approx$

3. Edward bikes the same route to and from school each day. After 28 school days, he bikes a total distance of 389.2 miles.
- Estimate how many miles he bikes in one day.
 - If Edward continues his routine of biking to school, about how days altogether will it take him to reach a total distance of 500 miles?
4. Xavier goes to the store with \$40. He spends \$38.60 on 13 bags of popcorn.
- About how much does a bag of popcorn cost?
 - Does he have enough money for another bag? Use your estimate to explain your answer.

Name _____

Date _____

1. Estimate the quotients.

a. $3.53 \div 51 \approx$

b. $24.2 \div 42 \approx$

c. $9.13 \div 23 \approx$

d. $79.2 \div 39 \approx$

e. $7.19 \div 58 \approx$

2. Estimate the quotient in (a). Use your estimated quotient to estimate (b) and (c).

a. $9.13 \div 42 \approx$

b. $913 \div 42 \approx$

c. $91.3 \div 42 \approx$

3. Mrs. Huynh bought a bag of 3 dozen toy animals as party favors for her son's birthday party for \$28.97. Estimate the price of each toy animal.
4. Carter drank 15.75 gallons of water in 4 weeks. He drank the same amount of water each day.
- Estimate how many gallons he drank in one day.
 - Estimate how many gallons he drank in one week.
 - About how many days altogether will it take him to drink 20 gallons?

Name _____

Date _____

1. $156 \div 24$ and $102 \div 15$ both have a quotient of 6 and a remainder of 12.
 - a. Are the division expressions equivalent to each other? Use your knowledge of decimal division to justify your answer.
 - b. Construct your own division problem with a two-digit divisor that has a quotient of 6 and a remainder of 12 but is not equivalent to the problems in 1(a).
2. Divide, then check your work with multiplication.
 - a. $36.14 \div 13$
 - e. $249.6 \div 52$
 - b. $62.79 \div 23$
 - f. $24.96 \div 52$
 - c. $12.21 \div 11$
 - g. $300.9 \div 59$
 - d. $6.89 \div 13$
 - h. $30.09 \div 59$

Name _____

Date _____

1. Create two whole number division problems that have a quotient of 9 and a remainder of 5. Justify which is greater using decimal division.

2. Divide, then check your work with multiplication.

a. $75.9 \div 22$

c. $77.14 \div 38$

b. $97.28 \div 19$

d. $12.18 \div 29$

3. Divide.

a. $5,224 \div 43$

b. $1,908 \div 36$

4. Use the quotients in Problem 3 to write the quotients for the following. Explain how you decided where to place the decimal in the quotient.

a. $522.4 \div 43 =$ _____

$52.24 \div 43 =$ _____

b. $190.8 \div 36 =$ _____

$19.08 \div 36 =$ _____

5. The height of Burj Dubai, the tallest building in the world (2013), has a total of 162 stories. If the building is 828 meters tall, about how many meters tall is each story?

6. Elaine has a desktop that is 4.5 feet by 5.5 feet, and she is going to cover it with patches of wallpaper that each measure 18 inches wide and 24 inches long.

How many patches will Elaine need to cover the entire desktop? Justify your answer.

Name _____

Date _____

1. Divide. Check your work with multiplication.

a. $5.6 \div 16$

d. $36 \div 24$

g. $5.4 \div 15$

b. $21 \div 14$

e. $81 \div 54$

h. $16.12 \div 52$

c. $24 \div 48$

f. $15.6 \div 15$

i. $2.8 \div 16$

2. 30.48 kg of beef was placed into 24 packages of equal weight. What is the weight of one package of beef?

Name _____

Date _____

1. Divide and check.

a. $7 \div 28$

c. $6.5 \div 13$

e. $561.68 \div 28$

b. $51 \div 25$

d. $132.16 \div 16$

f. $604.8 \div 36$

2. In a science class, students water a plant with the same amount of water each day for 28 consecutive days. If the students use a total of 23.8 liters of water over the 28 days, how many liters of water did they use each day? How many milliliters did they use each day?

3. A seamstress has a piece of cloth that is 3 yards long. She cuts it into shorter lengths of 16 inches each. How many of the shorter pieces can she cut?
4. Jenny filled 12 pitchers with an equal amount of lemonade in each. The total amount of lemonade in the 12 pitchers was 41.4 liters. How much lemonade would be in 7 pitchers?

Exit Slips

Name _____

Date _____

1. Express nine thousandths as a decimal.
2. Express twenty-nine thousandths as a fraction.
3. Express 24.357 in words.
 - a. Write the expanded form using fractions or decimals.
 - b. Express in unit form.

Name _____

Date _____

1. Show the numbers on the place value chart using digits. Use $>$, $<$, or $=$ to compare. Explain your thinking to the right.

167.4  167.462



2. Use $>$, $<$, and $=$ to compare the numbers.

32.725  32.735

3. Arrange in descending order.

76.342 76.332 76.232 76.343

Name _____

Date _____

Use the table to round the number to the given places. Label the number lines and circle the rounded value.

0	8 ones	5 tenths	4 hundredths	6 thousandths
		85 tenths	4 hundredths	6 thousandths
			854 hundredths	6 thousandths
				8546

8.546

a. hundredths



b. tens



Name _____

Date _____

1. Round the quantity to the given place value. Draw number lines to explain your thinking. Circle the rounded value on the number line.

a. 13.989 to nearest tenth

b. 382.993 to nearest hundredth

Name _____

Date _____

1. Solve.

a. 4 hundredths + 8 hundredths = _____ hundredths = _____ tenths _____ hundredths

b. 64 hundredths + 8 hundredths = _____ hundredths = _____ tenths _____ hundredths

2. Solve using the standard algorithm.

a. $2.40 + 1.8 =$ _____

b. $36.25 + 8.67 =$ _____

Name _____

Date _____

1. Subtract.

$$1.7 - 0.8 = \underline{\hspace{1cm}} \text{ tenths} - \underline{\hspace{1cm}} \text{ tenths} = \underline{\hspace{1cm}} \text{ tenths} = \underline{\hspace{1cm}}$$

2. Subtract vertically, showing all work.

a. $84.637 - 28.56 = \underline{\hspace{2cm}}$

b. $7 - 0.35 = \underline{\hspace{2cm}}$

Name _____

Date _____

1. Solve by drawing disks on a place value chart. Write an equation and express the product in standard form.

4 copies of 3 tenths

2. Complete the area model, and then find the product.

3×9.63

_____	_____	_____
_____ 3 x _____ ones	_____ 3 x _____ tenths	_____ 4 x _____ hundredths

Name _____

Date _____

1. Use estimation to choose the correct value for each expression.

a. 5.1×2 0.102 1.02 10.2 102b. 4×8.93 3.572 35.72 357.2 35722. Estimate the answer for 7.13×6 . Explain your reasoning using words, pictures or numbers.

Name _____ Date _____

1. Complete the sentences with the correct number of units and complete the equation.

a. 2 groups of _____ tenths is 1.8 $1.8 \div 2 = \underline{\hspace{2cm}}$

b. 4 groups of _____ hundredths is 0.32 $0.32 \div 4 = \underline{\hspace{2cm}}$

c. 7 groups of _____ thousandths is 0.021 $0.021 \div 7 = \underline{\hspace{2cm}}$

2. Complete the number sentence. Express the quotient in units and then in standard form.

a. $4.5 \div 5 = \underline{\hspace{2cm}}$ tenths $\div 5 = \underline{\hspace{2cm}}$ tenths $= \underline{\hspace{2cm}}$

b. $6.12 \div 6 = \underline{\hspace{2cm}}$ ones $\div 6 + \underline{\hspace{2cm}}$ hundredths $\div 6$

$= \underline{\hspace{2cm}}$ ones $+ \underline{\hspace{2cm}}$ hundredths

$= \underline{\hspace{2cm}}$

Name _____

Date _____

1. Draw number disks on the place value chart to solve. Show your steps using long division.

a. $5.372 \div 2 =$ _____

Ones	Tenths	Hundredths	Thousandths

$$2 \overline{) 5.372}$$

2. Solve using the standard algorithm.

a. $0.178 \div 4 =$ _____

Name _____ Date _____

1. Draw number disks on the place value chart to solve, and show your steps using long division.

$0.9 \div 4 = \underline{\hspace{2cm}}$

Ones	●	Tenths	Hundredths	Thousandths

$$4 \overline{) 0.9}$$

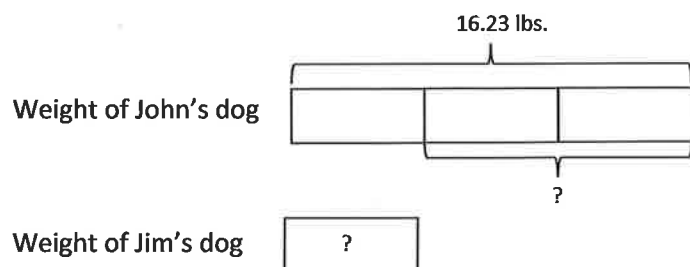
2. Solve using the standard algorithm.

$9.8 \div 5 =$

Name _____

Date _____

Write a word problem with two questions that matches the tape diagram below, then solve.



Name _____

Date _____

1. Find the products using the area model and the standard algorithm.

a. 33.2×21

b. 1.7×55

2. If the product of 485×35 is 16,975, what is the product of 485×3.5 ? How do you know?

Name _____

Date _____

Use estimation and place value reasoning to give the missing product. Explain how you know.

1. If $647 \times 63 = 40,761$ then $6.47 \times 63 =$ _____

2. Solve using the standard algorithm.

a. 6.13×14

b. 104.35×34

Name _____

Date _____

Find the product using the standard algorithm.

a. 3.03×402

b. 667×1.25

Name _____

Date _____

1. Convert.

a. $37 \text{ L} = \underline{\hspace{2cm}} \text{ mL}$

b. $\underline{\hspace{2cm}} \text{ qt} = 61 \text{ gal}$

c. $45 \text{ kg} = \underline{\hspace{2cm}} \text{ g}$

Name _____

Date _____

1. Convert. Use your Reference Sheet if necessary.

a. $3.9 \text{ km} = \underline{\hspace{2cm}} \text{ m}$

b. $\underline{\hspace{2cm}} \text{ lb} = 2.4 \text{ tons}$

c. $13.5 \text{ qt} = \underline{\hspace{2cm}} \text{ pt}$

Name _____

Date _____

Solve.

1. While training for an Ironman competition, Johnson swam 0.86 km, biked for 22.4 km, and ran 4.25 km.
 - a. Johnson completed this routine twice a week. How far did Johnson travel in one week while training, in meters?

 - b. The following week Johnson decided to work harder. He still trained twice a week, but he doubled the length of his swim and his biking and tripled the amount he ran. How much further did he travel this week than he did in the first week, in meters?

Name _____

Date _____

1. Divide.

a. $27.3 \div 3$

b. $2.73 \div 30$

c. $273 \div 300$

2. If $7.29 \div 9 = 0.81$, then the quotient of $7.29 \div 90$ is _____. Use place value reasoning to explain the placement of the decimal point.

Name _____

Date _____

1. Estimate the quotients.

a. $1.64 \div 22 \approx$

b. $123.8 \div 62 \approx$

c. $6.15 \div 31 \approx$

Name _____

Date _____

1. Estimate. Then, divide using the standard algorithm and check.

a. $45.15 \div 21$

b. $14.95 \div 65$

2. We learned today that division expressions that have the same quotient and remainders are not necessarily equal to each other. Explain how this is possible.

Name _____

Date _____

1. Divide

a. $28 \div 32$

b. $1,201.68 \div 24$